

Recombinant Human Carbonic Anhydrase VIII, His-tagged

Cat. No. CA8-1388H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant humanCA8 protein fused to His-tag at N-terminus, was expressed in E. coli andpurified by using conventional chromatography.
Species	Human
Source	E.coli
Description	CA8 wasinitially named CA-related protein because of sequence similarity to otherknown carbonic anhydrase genes. However, this protein lacks carbonicanhydrase activity (i.e., the reversible hydration of carbon dioxide). Itcontinues to carry a carbonic anhydrase designation based on clear sequenceidentity to other members of the carbonic anhydrase gene family. Defects inCA8 are the cause of cerebellar ataxia mental retardation and dysequilibriumsyndrome type 3 (CMARQ3).
Form	Liquid. 20mM Tris-HClbuffer (pH8.0) containing 20% glycerol, 1mM DTT.
Molecular Weight	35.5 kDa(314aa), confirmed by MALDI-TOF (Molecular weight on SDS-PAGE will appearhigher).
Purity	> 90%by SDS - PAGE
Concentration	1 mg/ml(determined by Bradford assay)
Sequences of	MGSSHHHHHHSSGLVPRGSH MGSHMADLSF IEDTVAFPEK EEDEEEEEEG

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aminoacids

VEWGYEEGVE WGLVFPDANGEYQSPINLNS REARYDPSLL DVRLSPNYVV
 CRDCEVTNDG HTIQVILKSK SVLSGGPLPQ GHEFELYEVRFWGRENQRG
 SEHTVNFKAF PMELHLIHWN STLFGSIDEA VGKPHGIAII ALFVQIGKEH
 VGLKAVTEILQDIQYKGKSK TIPCFNPNTL LPDPLLRDYW VYEGSLTIPP
 CSEGVTWILF RYPLTISQLQ IEEFRRLRTHVKGAELVEGC DGILGDNFRP
 TQPLSDRVIR AAFQ

Storage

Can bestored at +4°C short term (1-2 weeks). For long term storage, aliquot andstore at -20°C or -70°C. Avoid repeated freezing and thawing cycles.

GENE INFORMATION
Gene Name

CA8 carbonic anhydrase VIII [Homosapiens]

Official Symbol

CA8

Synonyms

CA8; carbonic anhydrase VIII; CALS; CARP;CAMRQ3; CA-VIII; MGC99509;
 MGC120502; carbonic anhydrase-related protein;CA-related protein;
 OTTHUMP00000229370; carbonate dehydratase; carbonicanhydrase-like sequence;
 EC 4.2.1.1

Gene ID

767

mRNA Refseq

NM_004056

Protein Refseq

NP_004047

MIM

114815

UniProt ID

P35219

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Chromosome Location	8q11-q12
Pathway	Nitrogen metabolism
Function	carbonate dehydratase activity; metal ionbinding; metal ion binding

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